

**CLAIM AMENDMENTS**

Please cancel claims 1-17 without prejudice or disclaimer.

Please add new claims 18-20.

Claims 1-17. (Canceled)

18. (New) An apparatus, comprising:

a die having an integrated circuit, the integrated circuit having "m" scan chains, each scan chain to be scanned having "p" scan cells, the die having:

a weighted random pattern generator on the die, the weighted random pattern generator having:

a pseudo-random pattern generator to generate pseudo-random binary bits;

a memory to store  $m \times p$  multi-bit vectors, the vectors to determine weights to be applied to the pseudo-random binary bits;

set of weighted pseudo-random bit generators corresponding to the set of scan chains;

circuitry to retrieve the weights from memory and to distribute the weights to the set of weighted pseudo-random bit generators, the weighted pseudo-random bit generators to apply the weights to the pseudo-random binary bits to generate weighted pseudo-random bits; and

a controller to control the retrieval and distribution of the weights.

19. (New) The apparatus of claim 18, further comprising a circuitry to select a vector to be retrieved.

20. (New) The apparatus of claim 19, further comprising a circuitry to select a memory location for the vector to be retrieved.